



# **CULTURAL RESOURCES VOL 3**

## **ENVIRONMENTAL EFFECTS**

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### **TWIN METALS MINNESOTA PROJECT**

Environmental Review Support Document

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**Prepared for Twin Metals Minnesota, LLC**  
**Prepared by**

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**REVISION RECORD**

Revision	Date	Description	EDMS Download Date	Project Configuration Version
0A	11-20-2020	Submitted for Agency Review – TOC		

**REVISION NARRATIVE**

**DISCLAIMER**

*This document is a working document. This document may change over time because of new information, or further analysis or deliberation.*



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**LIST OF ABBREVIATIONS, ACRONYMS, AND SYMBOLS**

TMM	Twin Metals Minnesota, LLC
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## **1.0 INTRODUCTION**

The Twin Metals Minnesota, LLC (TMM) Project (Project) is focused on designing, permitting, constructing, and operating an underground copper, nickel, cobalt, platinum, palladium, gold, and silver mining project. Located approximately nine miles (14 kilometers [km]) southeast of Ely, Minnesota, and 11 miles (18 km) northeast of Babbitt, Minnesota, the Project targets valuable state, federal, and private minerals within the Maturi deposit, which is a part of the Duluth Complex geologic formation.

All potential Project infrastructure locations presented herein are considered preliminary and are undergoing further design and engineering evaluations which will dictate final design and locations. Further information about TMM and the Project is located at <http://www.twin-metals.com/>.

The purpose of this document is to provide necessary information for the environmental review and permitting process. TMM retained [insert Consultant name] (insert abbreviated Consultant name) to complete [insert text].

## **2.0 SUMMARY**

- Provide a high level summary of what is presented within this report.
- Describes avoidance strategies.
- Describes unavoidable impacts (if present) within APE, based on methods and indicators identified in the other volumes of the *Cultural Resources Data Package*.
- Describes mitigations that could be implemented as necessary.
- Describe how this report volume relates to the other volumes.
  - Indicate regulatory framework and proposed action and alternatives are defined in the other volumes of the *Cultural Resources Data Package*.
- Reference relevant sections of the FSDD, SEAW, and / or federal documents to remind the reader there is a defined scope that is being followed.

## **3.0 ENVIRONMENTAL CONSEQUENCES**

### **3.1 Impact Assessment Indicators and Methods**

- Describe the impact assessment indicators and methods at a high level using the other volumes of the *Cultural Resources Data Package* and indicate where additional details can be found within this document.

- Describe and show within figures the APE. Describe at a high level using the other volumes of the *Cultural Resources Data Package* and indicate where additional details can be found within this document.

## **3.2 Impact Assessment**

Utilizing the impact assessment methods and APE summarized in Section 3.1, an assessment of direct and indirect impacts will be conducted and described within this section. The following items will be assessed and described for the proposed action, alternatives to the proposed action, and the no action alternative:

- Number of NRHP-eligible or unevaluated sites impacted;
  - Physical disturbance or damage to all or part of the sites
  - Introduction of visual or audible elements that could diminish the integrity of the site's historic features
- Impacts to treaty rights including, wild rice, medicinal plants, maple trees, wildlife, and loss of access to land to exercise treaty rights, using the *Water Resources Data Package* and the *Biology Data Package*; and
- Discussion on Project-specific concerns brought up during consultation.

### **3.2.1 Proposed Action**

Direct and indirect impacts associated with the proposed action will be described in this section.

### **3.2.2 Alternatives to the Proposed Action**

Direct and indirect impacts associated with the alternatives will be discussed in this section. This discussion will focus on differences in impacts between the alternatives and proposed action. Impacts that are the same between the proposed action and alternatives will be noted but not discussed in detail.

### **3.2.3 No Action Alternative**

Direct and indirect impacts associated with the no action alternative will be described in this section.

## **4.0 AVOIDANCE, MINIMIZATION, MITIGATION AND MONITORING MEASURES**

### **4.1 Proposed Action**

Avoidance, minimization, mitigation, and monitoring measures associated with the proposed action will be described in this section.

- Discuss avoidance / minimization steps involved in siting and design of project features

## **4.2 Alternatives to the Proposed Action**

Avoidance, minimization, mitigation, and monitoring measures associated with the alternatives to the proposed action will be described in this section.

- Discuss avoidance / minimization steps involved in siting and design of alternative features

## **5.0 REFERENCES**



## **TABLES**



## **FIGURES**





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## **APPENDICES**



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**APPENDIX [#A, B, C, D]**

**[APPENDIX TITLE]**



## **APPENDIX [#A, B, C, D]**

### **[APPENDIX TITLE]**

*[Insert page break for each additional appendix.]*